

### Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

#### **Listing of Claims:**

1-29. (canceled)

30. (previously presented) A substantially purified or isolated nucleic acid encoding a malate dehydrogenase (MDH) polypeptide from a clover (*Trifolium*) species, wherein said nucleic acid is from white clover (*Trifolium repens*).

31-32. (canceled)

33. (currently amended) A nucleic acid comprising a nucleotide sequence selected from the group consisting of

(a) SEQ ID NOS 205, 218, 252, 271, 276, 288, 293, 297, 302, 306, and 308;

(b) ~~full~~ full length complements of the sequences recited in (a);

(c) full length sequences antisense to the sequences recited in (a) or (b);

(d) functionally active variants having at least approximately 95% identity to an entire sequence recited in (a), (b) or (c), wherein said functionally active variants have the ability to modify malate dehydrogenase activity in a plant; and

(e) RNA sequences corresponding to an entire sequence recited in (a), (b), (c) or (d).

34. (canceled)

35. (currently amended) A construct including a nucleic acid ~~or nucleic acid fragment~~ according to claim 30 comprising a nucleotide sequence selected from the group consisting of

(a) SEQ ID NOS 205, 218, 252, 271, 276, 288, 293, 297, 302, 306, and 308;

(b) full length complements of the sequences recited in (a);

(c) full length sequences antisense to the sequences recited in (a) or (b);

(d) functionally active variants having at least approximately 95% identity to an entire sequence recited in (a), (b) or (c), wherein said functionally active variants have the ability to modify malate dehydrogenase activity in a plant; and

(e) RNA sequences corresponding to an entire sequence recited in (a), (b), (c) or (d).

36-39. (canceled)

40.(currently amended) The construct according to claim 35 wherein the nucleic acid ~~or nucleic acid fragment~~ is operably linked to one or more regulatory elements, such that the nucleic acid ~~or nucleic acid fragment~~ is expressed.

41.(currently amended) The construct according to Claim 40, wherein the one or more regulatory elements include a promoter and a terminator, said promoter, nucleic acid ~~or nucleic acid fragment~~ and terminator being operably linked.

42.(currently amended) A plant cell, plant, plant seed or other plant part, including ~~a~~ the construct according to claim 35.

43.(canceled)

44.(withdrawn, currently amended) A method of modifying one or more plant functions selected from the group consisting of organic acid synthesis; organic acid secretion; nutrient acquisition; aluminium and acid soil tolerance; and nitrogen fixation and nodule function; in a plant, said method including introducing into said plant an effective amount of a nucleic acid ~~or nucleic acid fragment~~ according to claim 30.

45.(withdrawn, currently amended) A method according to claim 44 wherein said ~~method~~ includes introducing into said plant ~~an effective amount of a nucleic acid~~ comprises ~~comprising a~~

sequence selected from the group consisting of the sequences shown in SEQ ID NOS 205, 218, 252, 271, 276, 288, 293, 297, 302, 306, and 308.

46-48.(canceled)

49.(withdrawn) A method according to claim 44 wherein the method is modifying nutrient acquisition and the nutrient is phosphorous.

50.(withdrawn, currently amended) A substantially purified or isolated nucleic acid ~~or nucleic acid fragment~~ wherein the nucleic acid ~~or nucleic acid fragment~~ is a single nucleotide polymorphism (SNP) from a nucleic acid ~~fragment~~ according to claim 30.

51-57.(canceled)

58.(currently amended) The construct according to claim 35, wherein the nucleic acid ~~or nucleic acid fragment~~ comprises a sequence selected from the group consisting of the nucleic acid sequence of sequences shown in SEQ ID NOS 205, 218, 252, 271, 276, 288, 293, 297, 302, 306, and 308.

59. (currently amended) A plant cell, plant, plant seed or other plant part, comprising the a construct including a nucleic acid ~~or nucleic acid fragment~~ according to claim 58.

60. (previously presented) The nucleic acid according to claim 33, comprising Seq. ID No. 271.

61. (previously presented) The construct according to claim 35, comprising Seq. ID No. 271.

62. (previously presented) The construct according to claim 40, comprising Seq. ID No. 271.

63. (currently amended) ~~A The plant cell, plant, plant seed or other plant part, comprising the a construct according to claim 62.~~

64. (withdrawn, currently amended ) ~~The A construct of claim 35, further comprising one two~~  
or more nucleic acids selected from the group consisting of:

(a) nucleic acids encoding citrate synthase (CS) polypeptide ~~or a CS-like polypeptide;~~  
~~and~~

(b) ~~nucleic acids encoding a malate dehydrogenase (MDH) polypeptide or a~~  
~~MDH-like polypeptide;~~

~~—(c)—~~ nucleic acids encoding a phosphoenolpyruvate carboxylase (PEPC) polypeptide or  
a PEPC-like polypeptide,

wherein the nucleic acids are from a clover (Trifolium), medic (Medicago), ryegrass  
(Lolium) or fescue (Festuca) species.

65. (canceled)

66. (withdrawn) A construct according to claim 65, wherein the nucleic acid encoding an  
MDH or MDH-like polypeptide is selected from the group consisting of the sequences shown in  
SEQ ID NOS 205, 218, 252, 271, 276, 288, 293, 297, 302, 306, and 308.

67. (withdrawn) A construct according to claim 65, wherein the construct comprises a  
nucleic acid encoding a PEPC or a PEPC-like polypeptide.

68. (withdrawn) A construct according to claim 67, wherein the nucleic acid encoding an MDH  
or MDH-like polypeptide is selected from the group consisting of the sequences shown in SEQ  
ID NOS 205, 218, 252, 271, 276, 288, 293, 297, 302, 306, and 308.

69. (withdrawn) A construct according to claim 67, wherein the construct comprises a  
nucleic acid encoding a CS or a CS-like polypeptide.

70. (withdrawn) A construct according to claim 69, wherein the nucleic acid encoding an MDH or MDH-like polypeptide is selected from the group consisting of the sequences shown in SEQ ID NOS 205, 218, 252, 271, 276, 288, 293, 297, 302, 306, and 308.

71. (withdrawn, currently amended) A plant cell, plant, plant seed or other plant part, comprising ~~the~~ a construct in accordance with claim 64.